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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/821,075

04/08/2004

William Myers JR.

584-35897US (102.72)

9206

41904

7590

10/17/2006

EXAMINER

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ART UNIT

PAPER NUMBER

3641

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/821,075

Applicant(s)

MYERS ET AL.

Examiner

James S. Bergin

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

- A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4 and 7-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4 and 7-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 12 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 12, lines 3-5, how and by what means the presence of *"said reinforcing system and said casing produces an asymmetric radial weight distribution around the axis of the gun body"* specifically confers the property on the gun body such as, *"azimuthally orienting said gun body within a wellbore"* is not understood?

In claim 13, lines 1-2, *"the edges of said closed end"* is confusing because in Fig. 1, the wall of the closed end 24 of case 12 has a continuous edge, rather than a plurality of edges. What *"edges"* does claim 13 refer to?

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 4, 7-12, are rejected under 35 U.S.C. 102(b) as being anticipated by Kneisl et al. (US 2002/0189482 A1).

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Regarding claim 7, Kneisl et al. disclose a shaped charge assembly comprising: a casing 10 having an open end and a closed end; walls extending away from said closed end terminating on the open end; and a reinforcing system circumscribing at least a portion of said casing, said reinforcing system comprising a retaining shell 24 coaxially circumscribing a portion of said casing 10 and a bushing (unlabeled in the figures) coaxially disposed between said casing 10 and said retaining shell 12.

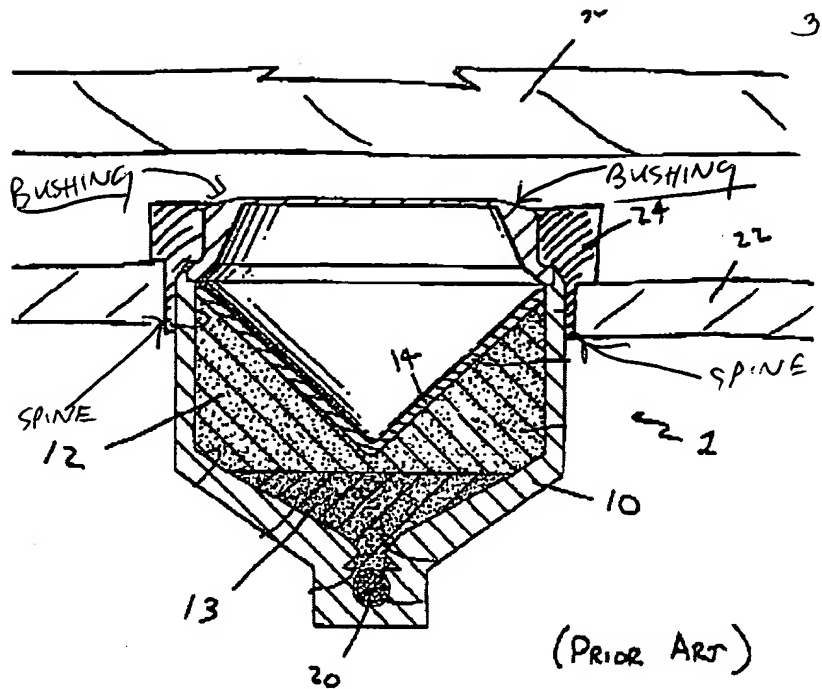


Figure 1

Regarding claim 4, the retaining shell 24 of Kneisl et al. comprises as a spine as indicated by the examiner.

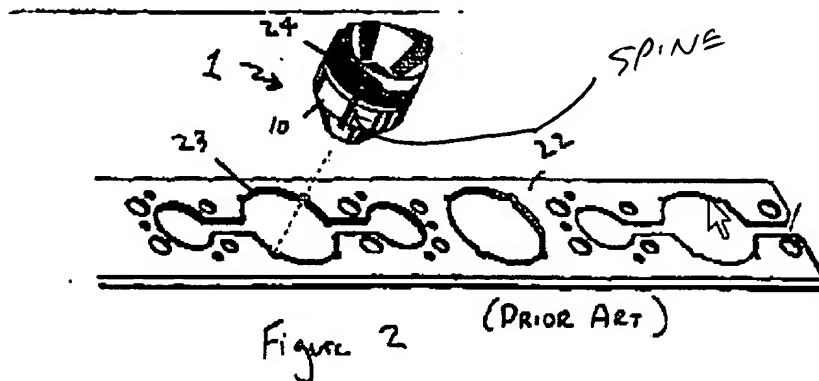


Figure 2

Regarding claim 8, the thickness of the walls of casing 10 decreases with distance from the closed end to the open end of the casing 10 (see Fig 1 above).

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Regarding claim 9, the thickness of the Kneisl et al. bushing varies along its length. It is inherent that the bushing could be resized by grinding paring or cutting pieces therefrom for any desired reason.

Regarding claims 10-12, see at least Kneisl et al. fig. 3. Regarding claim 12, and in as much as this claim can be understood due to its indefiniteness as discussed above, the retaining shell 24 extends along a portion of the length of the gun body 30 inherently producing an asymmetric radial weight distribution around the axis of the gun body 30, the gun body is capable of being azimuthally oriented within a wellbore.

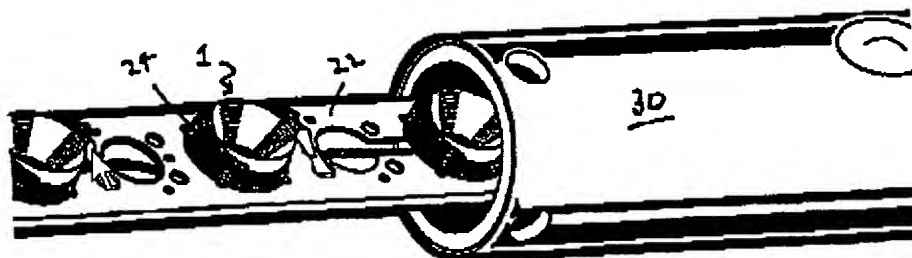


Figure 3 (Prior Art)

5. Claims 7, 14 and 15 rejected under 35 U.S.C. 102(b) as being anticipated by Bouguyon et al. (US 3,991,836).

Bouguyon et al. disclose a shaped charge assembly comprising: a casing 25 (Fig. 2) having an open end and a closed end; walls extending away from said closed end terminating on the open end; and a reinforcing system circumscribing at least a portion of said casing, said reinforcing system comprising a retaining shell 30 coaxially

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circumscribing a portion of said casing 25 and a bushing 31 coaxially disposed between said casing 25 and said retaining shell 30.

Regarding claims 14 and 15, the examiner has labeled the annular void.

6. Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Werner et al. (US 6,464,019 B1).

Werner et al. disclose a shaped charge assembly comprising: a casing 100 (Fig. 7) having an open end and a closed end; walls extending away from said closed end terminating on the open end; and a reinforcing system circumscribing at least a portion of said casing (a disclosed potential additional retaining shell material layer, labeled by the examiner, circumscribing the material layer 104 (see col. 5, lines 55-58), said reinforcing system comprising said retaining shell material layer coaxially circumscribing a portion of said casing material layer 104 and a bushing layer 102 coaxially disposed between said casing material layer 104 and said retaining shell material layer.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

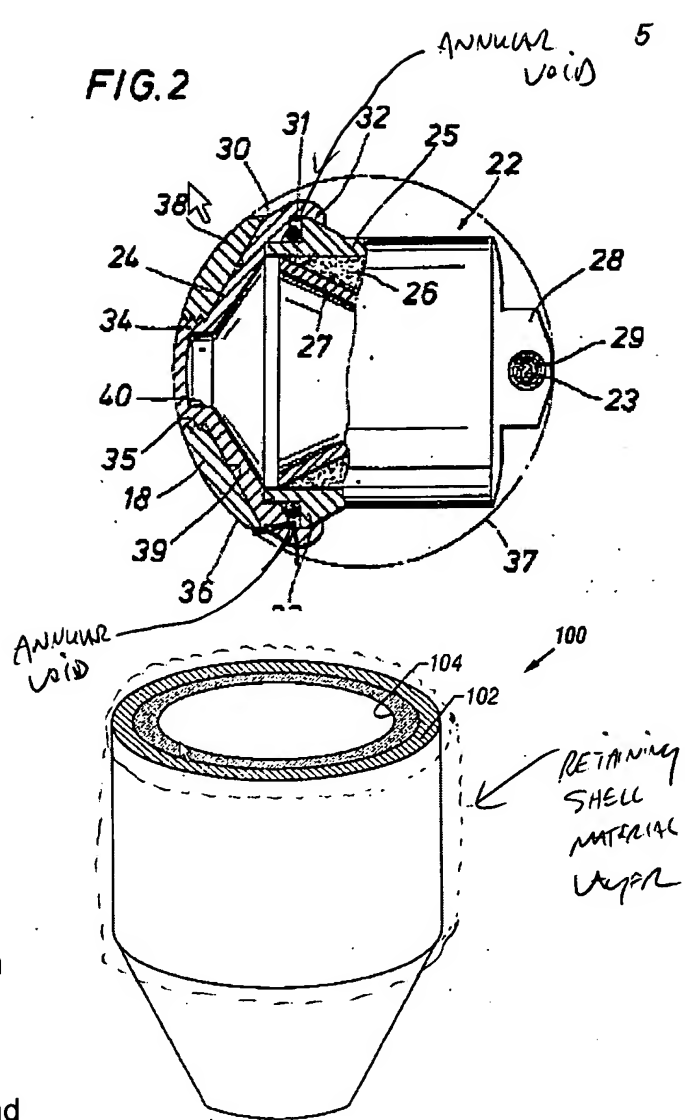


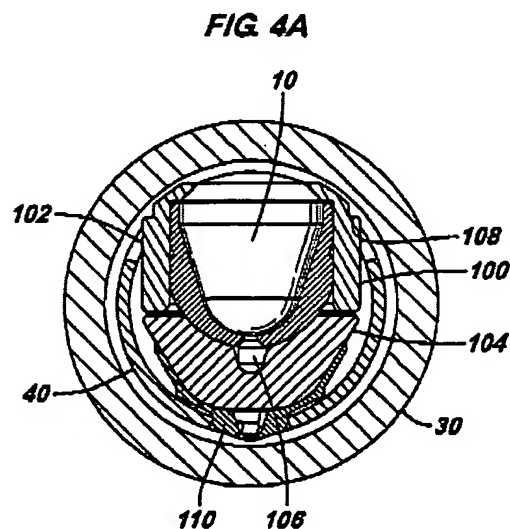
FIG. 7

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kneisl et al. (US 2002/0189482 A1) in view of Li et al. (2005/0173118 A1).

In as much as this claim can be understood due to its indefiniteness as discussed above, Kneisl et al. disclose a shaped charge assembly as discussed above with regard to claims 7 and 8. The thickness of the walls of Kneisl et al. casing 10 decreases with distance from the closed end to the open end of the casing 10 (see Fig 1). However, the edges of the closed end of the shaped charge casing 10 of Kneisl et al. Fig. 1 are not depicted as curvilinear. However, Li et al. discloses in Fig. 4A a shaped charge casing 10 that comprises a crucible shape, the closed end of which is curvilinear.

Thus Li et al. disclose the well known nature of shaped charge casings having a crucible shape and a curvilinear shaped edge at the closed end. The applicants' specification on page 4, lines 12-22, explains that the lack of criticality of the crucible shape to applicants' invention (see especially page 4, lines 18-22).



In view of Li et al.'s disclosure of the well known nature of casings having a crucible shape and a curvilinear closed end, it would have been an obvious to one of ordinary skill in the art at the time the invention was made to select a crucible shape and curvilinear closed end for the Kneisl et al. casing 10, the selection of such a shape comprising a substitution of a functional equivalent, knowledge of which being well within the skill level of one of ordinary skill in the art the time of invention.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Slagle et al. (US 5,460,095); Hancock et al. (US 4,885,993); Gill (US 4,832,134).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Bergin whose telephone number is 571-272-6872. The examiner can normally be reached on Monday - Wednesday and Friday, 8.30 - 5.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

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information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'James S. Bergin', followed by a horizontal line.

James S. Bergin